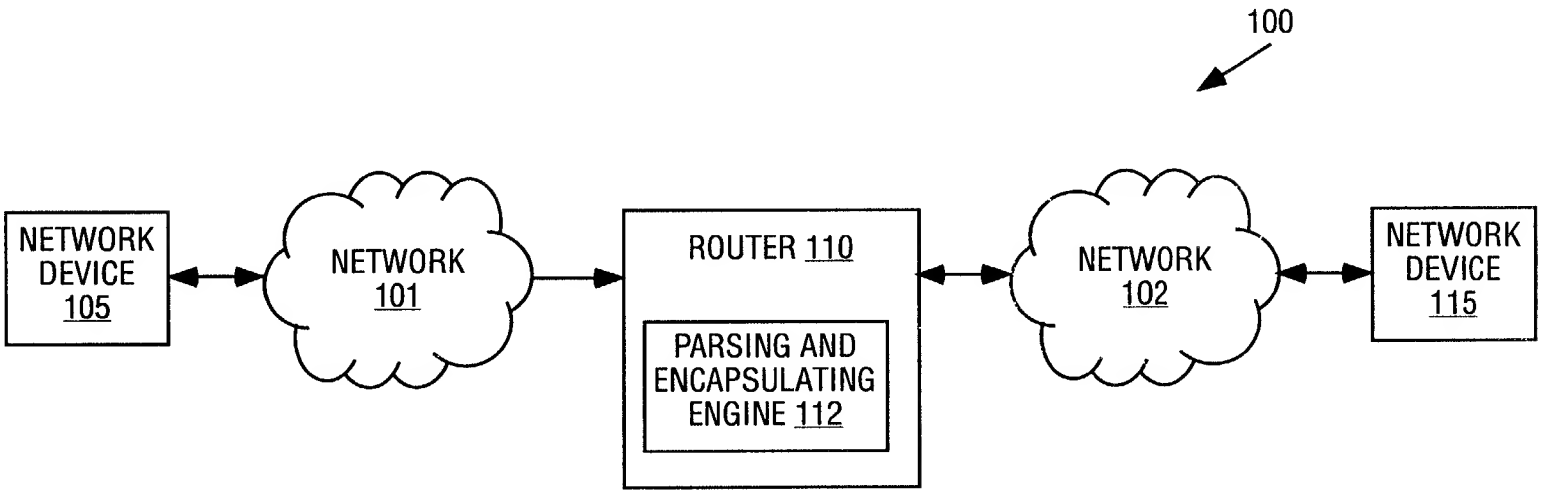
100
NETWORK DEVICE 105
NETWORK 101
ROUTER 110
PARSING AND ENCAPSULATING ENGINE 112
NETWORK 102
NETWORK DEVICE 115

FIG. 1A

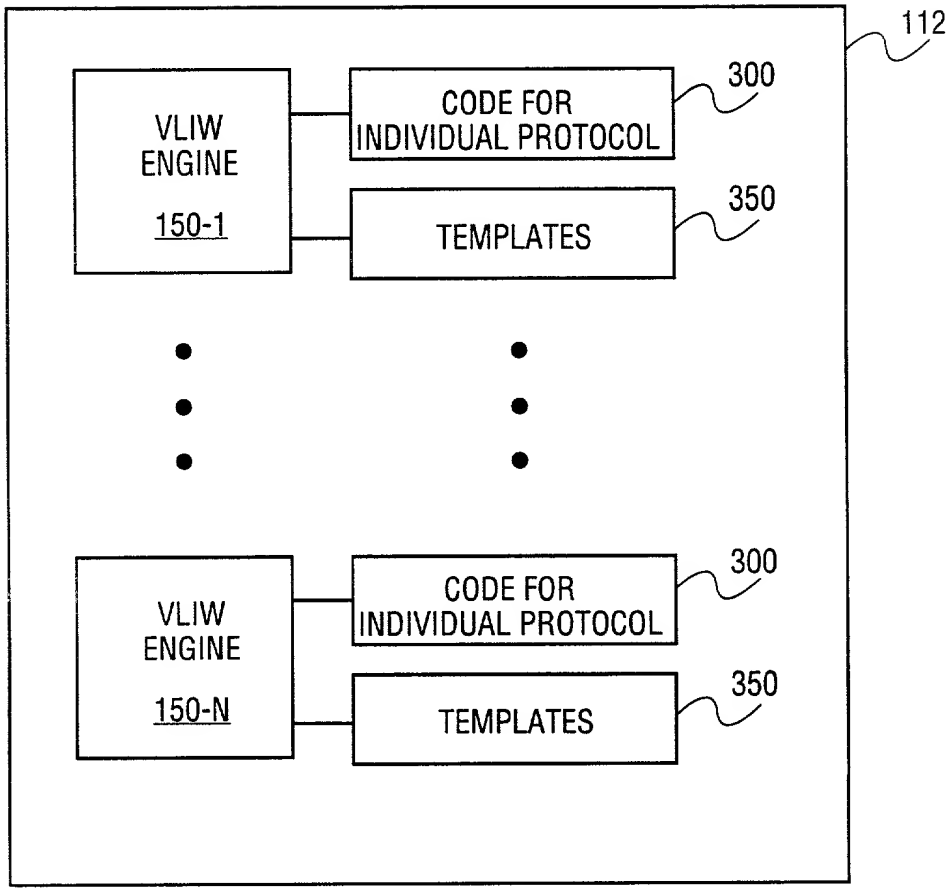
112
VLIW ENGINE 150-1
CODE FOR INDIVIDUAL PROTOCOL
300
TEMPLATES
350
VLIW ENGINE 150-N
CODE FOR INDIVIDUAL PROTOCOL
300
TEMPLATES
350

FIG. 1B

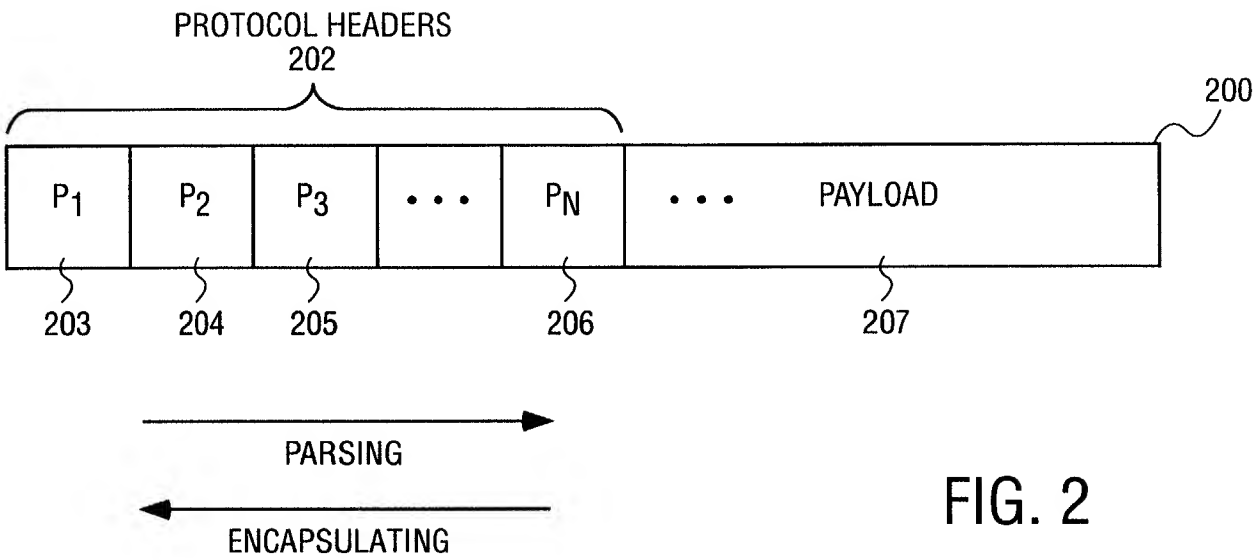

FIG. 2

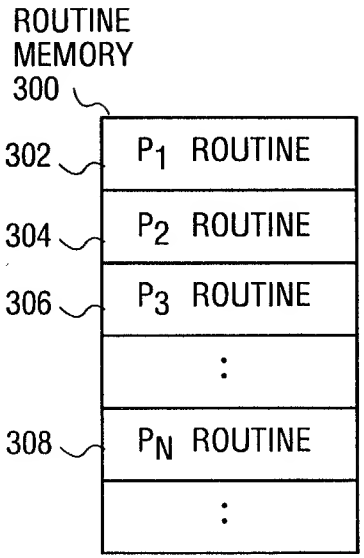

FIG. 3A

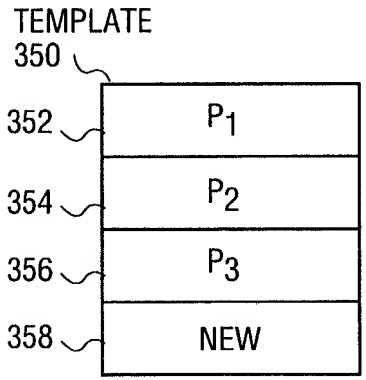

FIG. 3B

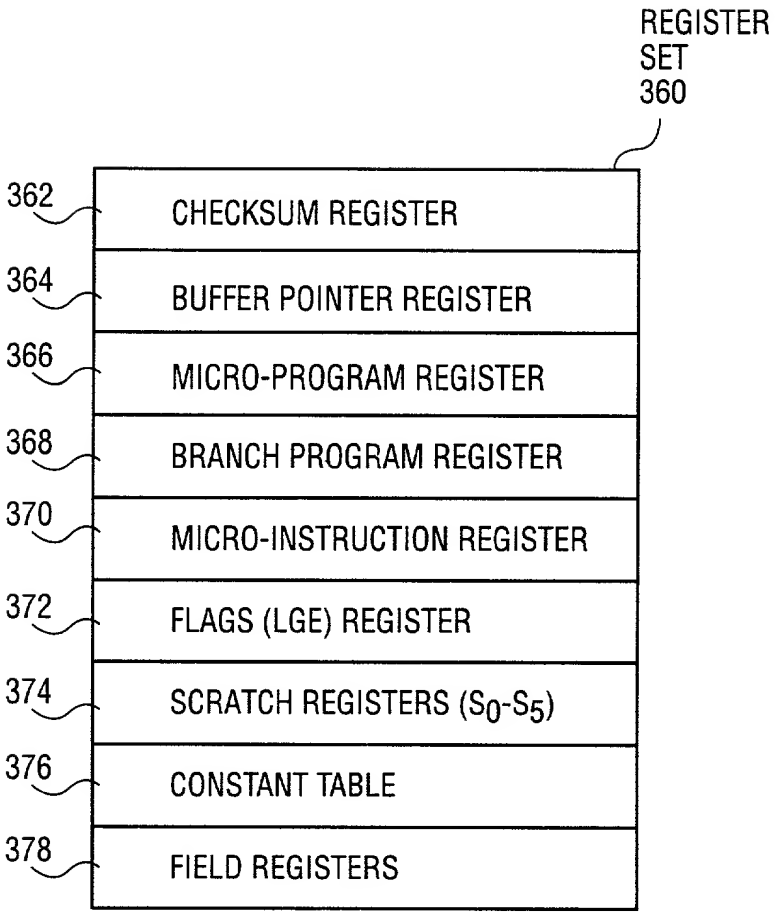
REGISTER SET 360
362
CHECKSUM REGISTER
364
BUFFER POINTER REGISTER
366
MICRO-PROGRAM REGISTER
368
BRANCH PROGRAM REGISTER
370
MICRO-INSTRUCTION REGISTER
372
FLAGS (LGE) REGISTER
374
SCRATCH REGISTERS (S_0-S_5)
376
CONSTANT TABLE
378
FIELD REGISTERS

FIG. 3C

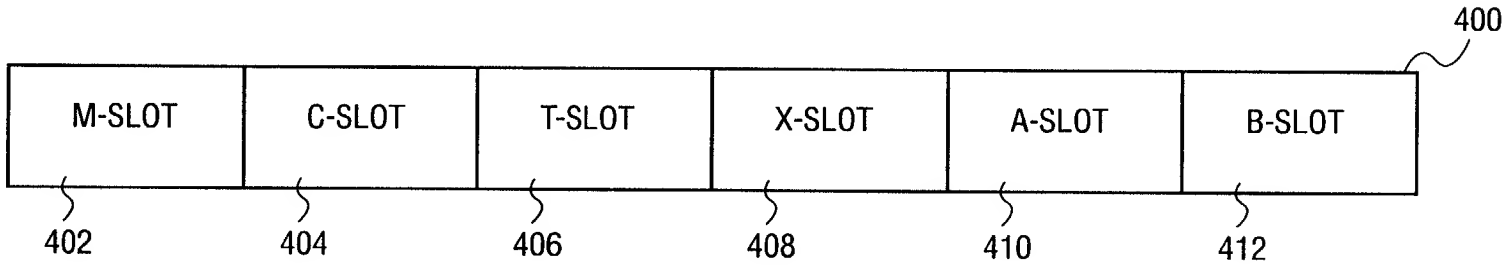
400
M-SLOT
C-SLOT
T-SLOT
X-SLOT
A-SLOT
B-SLOT
402
404
406
408
410
412

FIG. 4

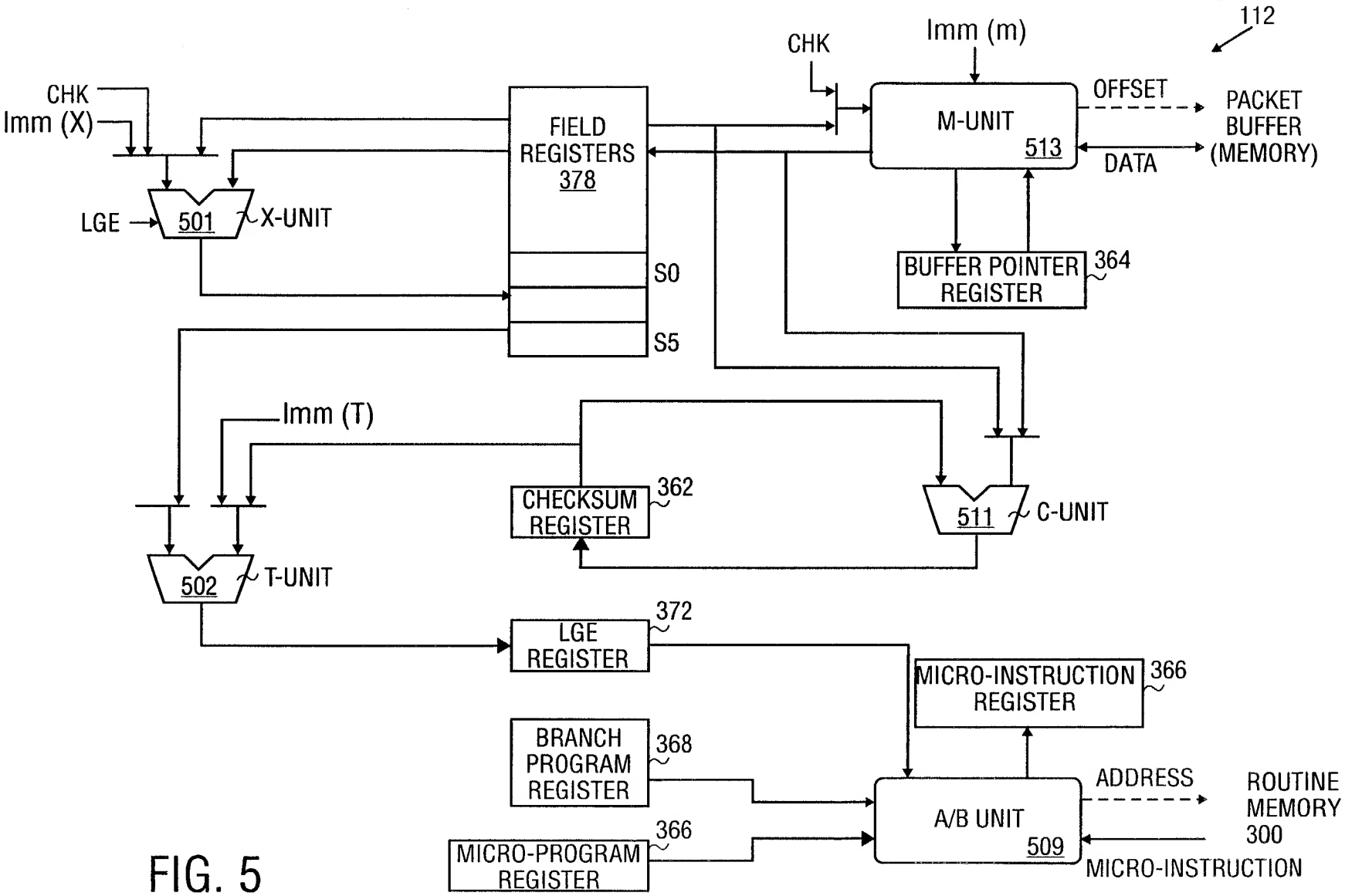
112
CHK
Imm (m)
CHK
Imm (X)
FIELD REGISTERS 378
M-UNIT 513
OFFSET
PACKET BUFFER (MEMORY)
DATA
LGE
501
X-UNIT
S0
S5
BUFFER POINTER REGISTER
364
Imm (T)
CHECKSUM REGISTER
362
511
C-UNIT
502
T-UNIT
372
LGE REGISTER
MICRO-INSTRUCTION REGISTER
366
BRANCH PROGRAM REGISTER
368
ADDRESS
ROUTINE MEMORY 300
A/B UNIT 509
366
MICRO-PROGRAM REGISTER
MICRO-INSTRUCTION

FIG. 5

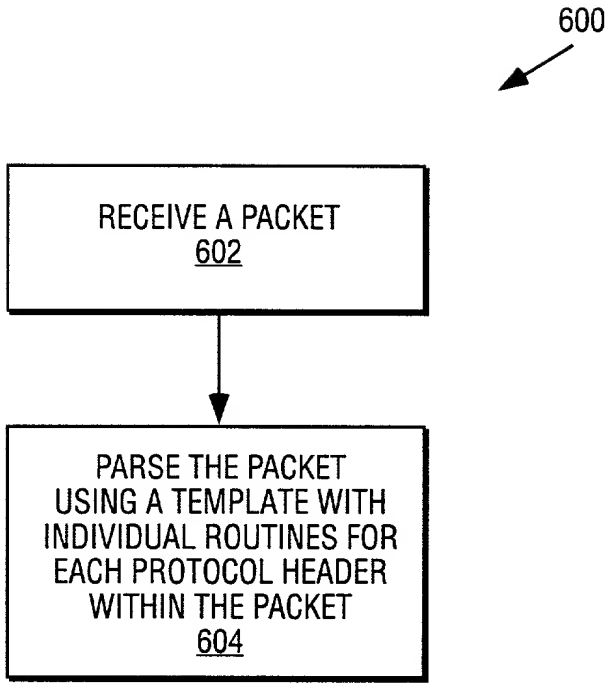
600
RECEIVE A PACKET
602
PARSE THE PACKET USING A TEMPLATE WITH INDIVIDUAL ROUTINES FOR EACH PROTOCOL HEADER WITHIN THE PACKET
604

FIG. 6

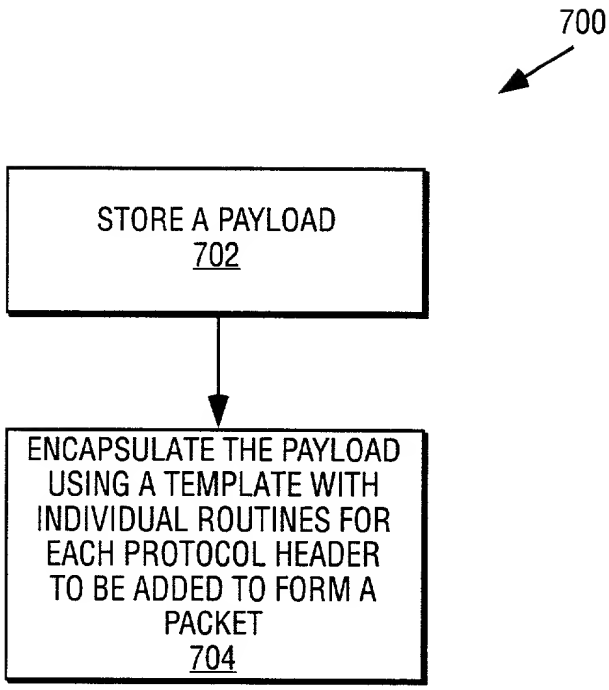
700
STORE A PAYLOAD
702
ENCAPSULATE THE PAYLOAD USING A TEMPLATE WITH INDIVIDUAL ROUTINES FOR EACH PROTOCOL HEADER TO BE ADDED TO FORM A PACKET
704

FIG. 7

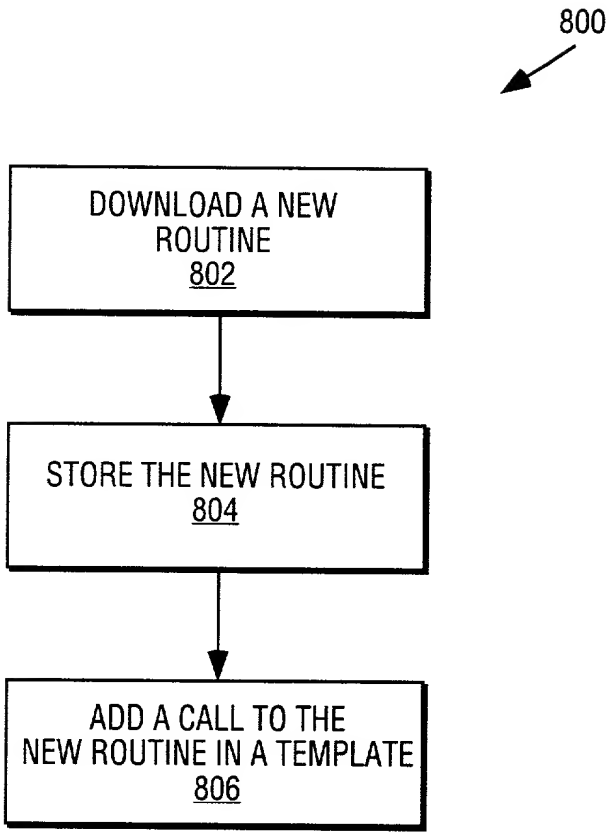
800
DOWNLOAD A NEW ROUTINE
802
STORE THE NEW ROUTINE
804
ADD A CALL TO THE NEW ROUTINE IN A TEMPLATE
806

FIG. 8